

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave. St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.25B

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

Location: Changxing Island, Shanghai, P.R. China**Report No:** NCR-000692**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 02-Mar-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0659**Type of problem:**

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component: PP40, OBG Segment 6AW
Procedural	Procedural	Description:	

Reference Description: Unapproved Heat Straightening of Deck Plate Diaphragm**Description of Non-Conformance:**

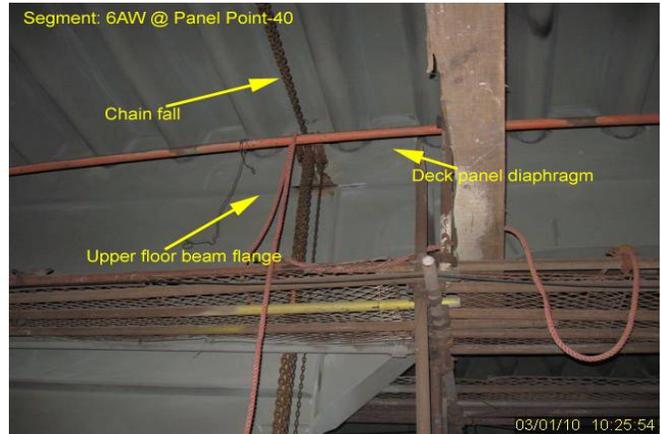
During random visual inspection of OBG Segment 6AW, this Caltrans Quality Assurance (QA) Inspector observed the following:

- ZPMC personnel have performed heat straightening at various locations along the top flange of the Floorbeam and the Deck Plate Diaphragm at Panel Point (PP) 40 in OBG segment 6AW.
- Heat Straightening work performed by ZPMC personnel deviated from the procedure shown on HSR1(B)-8155. Heat signatures were observed on the Deck Plate Diaphragm and the top flange of the Floorbeam. The internally approved HSR1 detailed heat straightening to be performed on the top flange of the Floorbeam only.
- QA was informed by ABF personnel that HSR1(B)-8155 was issued to correct perpendicular alignment between the Deck Plate Diaphragm and the Deck Plate.
- HSR1(B)-8155 denotes heat straightening of up to 25mm.
- Not all locations which received heat straightening were identified in HSR1(B)-8155.
- The jack used during heat straightening was not positioned as detailed in the HSR1.
- The piece marks of the affected Floorbeams at PP40 are as follows: FB011-003, FB003-028, FB033-001. The piece mark of the Deck Plate Diaphragm at PP40 is X1B.
- The Deck Plate Diaphragm is 716mm tall and 14mm thick.
- The weld numbers for the affected welds at PP40 are as follows: SSD12-PP040-005, SSD12-PP040-006, SSD12B-PP040-003, FB003-028-004, FB003-028-005, FB011-003-003, FB011-003-004, FB011-003-044, FB033-001-092, FB033-001-093, and FB033-001-147.
- The members affected by the above mentioned heat straightening work are not designated as SPCM material.

For further information please reference the attached pictures.

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 3)



Applicable reference:

-Contract Special Provision, Section 8.3: "For material less than or equal to 16 mm thick the contractor shall not heat straighten members more than 6 in 1000 without prior approval of the Engineer."

-AWS D1.5/2002 Section 3.7.3; "Members distorted by welding shall be heat straightened by mechanical means or by carefully supervised application of a limited amount of localized heat as approved by the engineer."
"

-HSR1(B)-8155

Who discovered the problem: Manoj Prabhune

Name of individual from Contractor notified: CK Chang

Time and method of notification: 03-01-2010 / 10:35 / Verbal

Name of Caltrans Engineer notified: Bill Howe

Time and method of notification: 03-02-2010 / 08:00 / Verbal

QC Inspector's Name: Wang Lu

Was QC Inspector aware of the problem: Yes No

Contractor's proposal to correct the problem:

N/A

Comments:

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh,(818) 292-0659, who represents the

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 3 of 3)

Office of Structural Materials for your project.

Inspected By: Simonis,Jim

QA Inspector

Reviewed By: Wahbeh,Mazen

SMR



DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge

333 Burma Road
Oakland CA 94607
Tel: Fax:

NON-CONFORMANCE REPORT TRANSMITTAL

To:	AMERICAN BRIDGE/FLUOR, A JV 375 BURMA ROAD OAKLAND CA 95607	Date:	03-Mar-2010
Dear:	Mr. Charles Kanapicki	Contract No:	04-0120F4 04-SF-80-13.2 / 13.9
Attention:	Mr. Thomas Nilsson Project/Fabrication Manager	Job Name:	SAS Superstructure
Subject:	NCR No. ZPMC-0659	Document No:	05.03.06-000650
Reference Description:	Unapproved Heat Straightening of Deck Plate Diaphragm		

The attached Non-Conformance Report describes an occurrence where the contractor did not comply with a requirement of the contract document as indicated below:

- Material or Workmanship not in conformance with contract documents.
- Quality Control (QC) not performed in conformance with contract documents.
- Recurring QC issue that constitutes a systematic problem in quality control.
- Non-Conformance Resolved.

Material Location: OBG **Lift:** 06

Remarks:

- During random visual inspection of OBG Segment 6AW, this Caltrans Quality Assurance (QA) Inspector observed the following:
 - ZPMC personnel have performed heat straightening at various locations along the top flange of the Floorbeam and the Deck Plate Diaphragm at Panel Point (PP) 40 in OBG segment 6AW.
 - Heat Straightening work performed by ZPMC personnel deviated from the procedure shown on HSR1(B)-8155. Heat signatures were observed on the Deck Plate Diaphragm and the top flange of the Floorbeam. The internally approved HSR1 detailed heat straightening to be performed on the top flange of the Floorbeam only.
 - QA was informed by ABF personnel that HSR1(B)-8155 was issued to correct perpendicular alignment between the Deck Plate Diaphragm and the Deck Plate.
 - HSR1(B)-8155 denotes heat straightening of up to 25mm.
 - Not all locations which received heat straightening were identified in HSR1(B)-8155.
 - The jack used during heat straightening was not positioned as detailed in the HSR1.
 - The piece marks of the affected Floorbeams at PP40 are as follows: FB011-003, FB003-028, FB033-001. The piece mark of the Deck Plate Diaphragm at PP40 is X1B.
 - The Deck Plate Diaphragm is 716mm tall and 14mm thick.
 - The weld numbers for the affected welds at PP40 are as follows: SSD12-PP040-005, SSD12-PP040-006, SSD12B-PP040-003, FB003-028-004, FB003-028-005, FB011-003-003, FB011-003-004, FB011-003-044, FB033-001-092, FB033-001-093, and FB033-001-147.
 - The members affected by the above mentioned heat straightening work are not designated as SPCM material.

For further information please reference the attached pictures.

Action Required and/or Action Taken:

Propose a resolution for the identified non-conformance with revised procedures to prevent future occurrences. A response for the resolution of this issue is expected within 7 days.

NCT

(Continued Page 2 of 2)

Transmitted by: Bill Howe Sr. Transportation Engineer

Attachments: ZPMC-0659

cc: Rick Morrow, Gary Pursell, Peter Siegenthaler, Stanley Ku, Brian Boal, Jason Tom, Contract Files, Ching Chao

File: 05.03.06

NCR PROPOSED RESOLUTION

To: CALTRANS - SAS Superstructure
333 Burma Road
Oakland CA 94607

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000650

Subject: NCR No. ZPMC-0659

Dated: 10-Jun-2010

Contract No.: 04-0120F4
04-SF-80-13.2 / 13.9

Job Name: SAS Superstructure

Document No.: ABF-NPR-000682 Rev: 00

Contractor's Proposed Resolution:

Reference Resolution: ZPMC is providing NDT after repair to show the welds are acceptable. Note the weld IDs identified in the NCR are incorrect, the NDT reports reflect the correct weld IDs.

ZPMC is providing NDT after repair to show the welds are acceptable. Note the weld IDs identified in the NCR are incorrect, the NDT reports reflect the correct weld IDs. Based on this ZPMC requests closure of this NCR.

Submitted by: Ishibashi, Joshua

Attachment(s): ABF-NPR-000682R00;

Caltrans' comments:

Status: REJ

Date: 14-Jun-2010

Please provide a description of what actions will be taken to prevent this non-conformance from occurring in the future. Additionally, please provide a description of the actual methods used during heat straightening as the methods used were not in accordance with the HSR1. Also, the NDT provided with this NPR cannot be verified as updated weld maps have not been provided showing changes from fillet welds to CJP welds. Additionally, weld maps for SEG027* and SEG029* have not been provided to verify the applicability of the NDT results provided.

Submitted by: Eagen, Sean

Attachment(s):

Date: 14-Jun-2010



No. B-783

LETTER OF RESPONSE

TO: American Bridge/Flour

DATE: 2010-6-10

REGARDING: NCR-000692(ZPMC-0659)

ZPMC is providing the HSR1 and sequent NDT records show the acceptable of these welds after heat straightening. Please be noticed that the welds' ID identified in NCR are incorrect, the fillets between Deck panel diaphragm & Floor beam flange have been changed into CJP joints, and the welds on FB were mis-located. Please check the attached report for correct information. Based on this, ZPMC is requesting closure of this NCR.

ATTACHMENT:

NCR-000692(ZPMC-0659)

HSR1(B)-8155

B787-UT-11535

B787-UT-11535 R1

B787-MT-21500

B787-MT-19953

B787-MT-19968

B787-MT-21499

A handwritten signature in blue ink, appearing to read 'Jay W'.

6/10/10



DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge
333 Burma Road
Oakland CA 94607
Tel: Fax:

NON-CONFORMANCE REPORT TRANSMITTAL

To: AMERICAN BRIDGE/FLUOR, A JV
375 BURMA ROAD
OAKLAND CA 95607

Date: 03-Mar-2010

Contract No: 04-0120F4
04-SF-80-13.2 / 13.9

Dear: Mr. Charles Kanapicki

Job Name: SAS Superstructure

Attention: Mr. Thomas Nilsson Project/Fabrication Manager

Document No: 05.03.06-000650

Subject: NCR No. ZPMC-0659

Reference Description: Unapproved Heat Straightening of Deck Plate Diaphragm

The attached Non-Conformance Report describes an occurrence where the contractor did not comply with a requirement of the contract document as indicated below:

- Material or Workmanship not in conformance with contract documents.
- Quality Control (QC) not performed in conformance with contract documents.
- Recurring QC issue that constitutes a systematic problem in quality control.
- Non-Conformance Resolved.

Material Location: OBG

Lift: 06

Remarks:

During random visual inspection of OBG Segment 6AW, this Caltrans Quality Assurance (QA) Inspector observed the following:

-ZPMC personnel have performed heat straightening at various locations along the top flange of the Floorbeam and the Deck Plate Diaphragm at Panel Point (PP) 40 in OBG segment 6AW.

-Heat Straightening work performed by ZPMC personnel deviated from the procedure shown on HSR1(B)-8155. Heat signatures were observed on the Deck Plate Diaphragm and the top flange of the Floorbeam. The internally approved HSR1 detailed heat straightening to be performed on the top flange of the Floorbeam only.

-QA was informed by ABF personnel that HSR1(B)-8155 was issued to correct perpendicular alignment between the Deck Plate Diaphragm and the Deck Plate.

-HSR1(B)-8155 denotes heat straightening of up to 25mm.

-Not all locations which received heat straightening were identified in HSR1(B)-8155.

-The jack used during heat straightening was not positioned as detailed in the HSR1.

-The piece marks of the affected Floorbeams at PP40 are as follows: FB011-003, FB003-028, FB033-001. The piece mark of the Deck Plate Diaphragm at PP40 is X1B.

-The Deck Plate Diaphragm is 716mm tall and 14mm thick.

-The weld numbers for the affected welds at PP40 are as follows: SSD12-PP040-005, SSD12-PP040-006, SSD12B-PP040-003, FB003-028-004, FB003-028-005, FB011-003-003, FB011-003-004, FB011-003-044, FB033-001-092, FB033-001-093, and FB033-001-147.

-The members affected by the above mentioned heat straightening work are not designated as SPCM material.

For further information please reference the attached pictures.

Action Required and/or Action Taken:

Propose a resolution for the identified non-conformance with revised procedures to prevent future occurrences. A response for the resolution of this issue is expected within 7 days.

NCT

(Continued Page 2 of 2)

Transmitted by: Bill Howe Sr. Transportation Engineer

Attachments: ZPMC-0659

cc: Rick Morrow, Gary Pursell, Peter Siegenthaler, Stanley Ku, Brian Boal, Jason Tom, Contract Files, Ching Chao

File: 05.03.06

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave. St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.25B

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT**Location:** Changxing Island, Shanghai, P.R. China**Report No:** NCR-000692**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 02-Mar-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0659**Type of problem:**Welding Concrete Other Welding Curing Procedural Joint fit-up Coating Other Procedural Procedural Description:**Bridge No:** 34-0006**Component:** PP40, OBG Segment 6AW**Reference Description:** Unapproved Heat Straightening of Deck Plate Diaphragm**Description of Non-Conformance:**

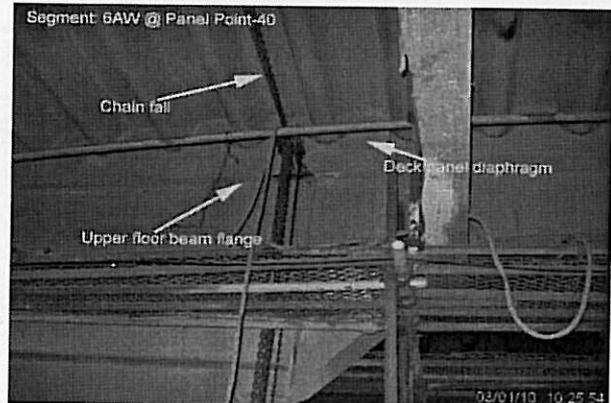
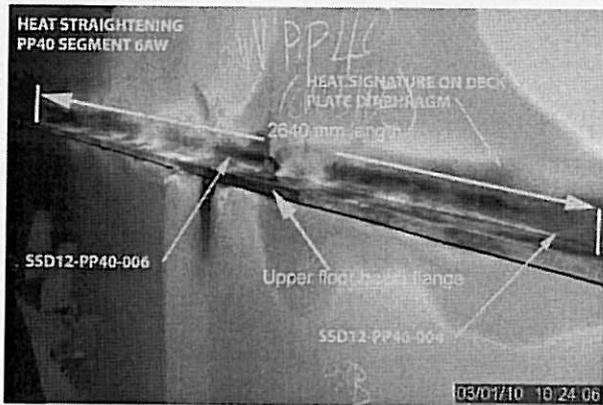
During random visual inspection of OBG Segment 6AW, this Caltrans Quality Assurance (QA) Inspector observed the following:

- ZPMC personnel have performed heat straightening at various locations along the top flange of the Floorbeam and the Deck Plate Diaphragm at Panel Point (PP) 40 in OBG segment 6AW.
- Heat Straightening work performed by ZPMC personnel deviated from the procedure shown on HSR1(B)-8155. Heat signatures were observed on the Deck Plate Diaphragm and the top flange of the Floorbeam. The internally approved HSR1 detailed heat straightening to be performed on the top flange of the Floorbeam only.
- QA was informed by ABF personnel that HSR1(B)-8155 was issued to correct perpendicular alignment between the Deck Plate Diaphragm and the Deck Plate.
- HSR1(B)-8155 denotes heat straightening of up to 25mm.
- Not all locations which received heat straightening were identified in HSR1(B)-8155.
- The jack used during heat straightening was not positioned as detailed in the HSR1.
- The piece marks of the affected Floorbeams at PP40 are as follows: FB011-003, FB003-028, FB033-001. The piece mark of the Deck Plate Diaphragm at PP40 is X1B.
- The Deck Plate Diaphragm is 716mm tall and 14mm thick.
- The weld numbers for the affected welds at PP40 are as follows: SSD12-PP040-005, SSD12-PP040-006, SSD12B-PP040-003, FB003-028-004, FB003-028-005, FB011-003-003, FB011-003-004, FB011-003-044, FB033-001-092, FB033-001-093, and FB033-001-147.
- The members affected by the above mentioned heat straightening work are not designated as SPCM material.

For further information please reference the attached pictures.

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 3)



Applicable reference:

-Contract Special Provision, Section 8.3: "For material less than or equal to 16 mm thick the contractor shall not heat straighten members more than 6 in 1000 without prior approval of the Engineer."
-AWS D1.5/2002 Section 3.7.3; "Members distorted by welding shall be heat straightened by mechanical means or by carefully supervised application of a limited amount of localized heat as approved by the engineer."
"

-HSR1(B)-8155

Who discovered the problem: Manoj Prabhune

Name of individual from Contractor notified: CK Chang

Time and method of notification: 03-01-2010 / 10:35 / Verbal

Name of Caltrans Engineer notified: Bill Howe

Time and method of notification: 03-02-2010 / 08:00 / Verbal

QC Inspector's Name: Wang Lu

Was QC Inspector aware of the problem: Yes No

Contractor's proposal to correct the problem:

N/A

Comments:

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 3 of 3)

Office of Structural Materials for your project.

Inspected By: Simonis,Jim

QA Inspector

Reviewed By: Wahbeh,Mazen

SMR

VT-54023, 53961, UT-11535, MF19953, 19968, 21499, 21500

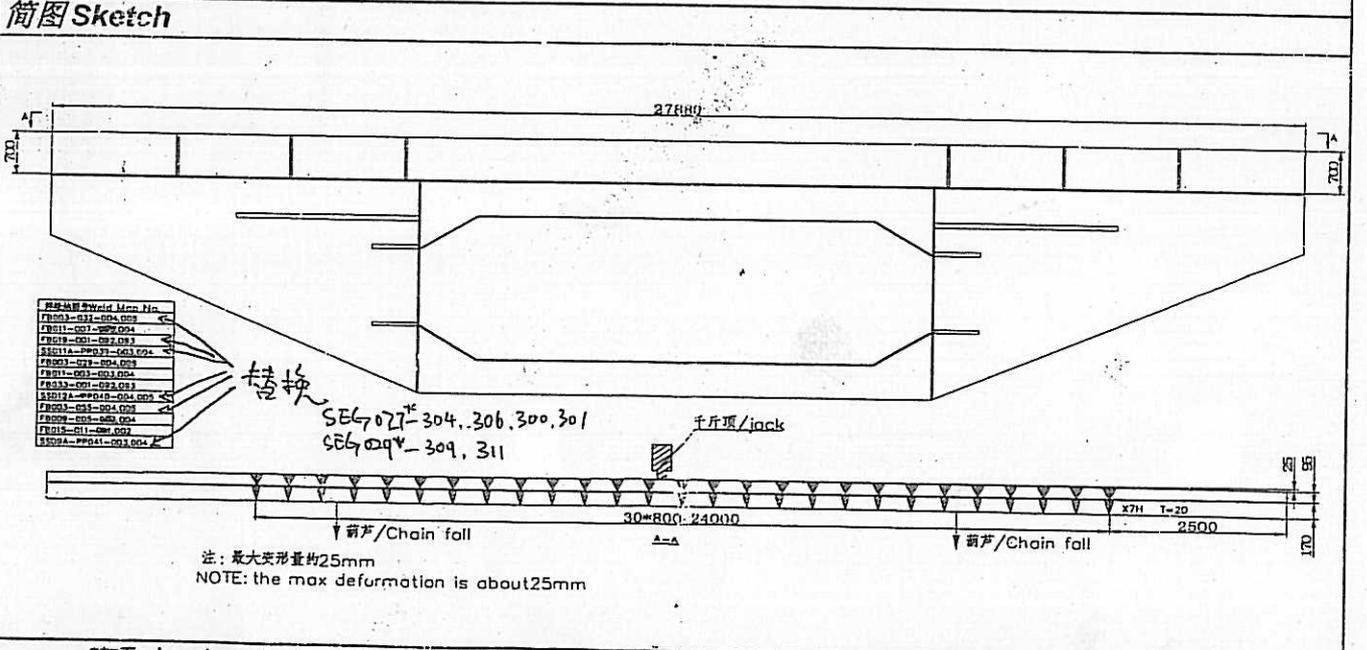
 <h2 style="text-align: center;">火工校正记录</h2> <h3 style="text-align: center;">Heat Straightening Record(HSR1)</h3>	报告号 Record#	HSR1(B)-8155
	版本号 Revision #	0
	日期 Date	2010.02.27

美国海湾大桥 San Francisco Oakland Bay Bridge
 CALTRANS #04-0120F4 工程编号 JOB#: ZP06-787

装配 Assembly:	质检代表/Quality Control Representative
部装 Sub-Assembly:	<i>[Signature]</i> 2/27/10
梁段 Gird: 6AW/6BW	质检经理/Quality Assurance Manager-Approval
塔段 Tower: N/A	<i>[Signature]</i> 2/27/10
焊缝号 Weld No: See Sketch	
焊缝地图号 Weld Map No: N/A	

情况描述 Description of Condition
 Cause 原因: Welding distortion 焊接变形
 Type of Defect 缺陷类型: Welding distortion 焊接变形
 Inspection Method 检查方法: Visual 目检

处置方法 Disposition
 缺陷去除方法(Defect Removal Method): natural gas 天然气
 后续NDE(Post-Removal NDE): After finishing heat straightening, the weld of the heat area shall perform NDT according to the approved shop drawing 校火后, 根据图纸要求对热影响区域进行NDT检测。
 纠正措施(Corrective Action(s)): Control current, voltage and weld speed according to relevant WPS. If necessary anti-deformation or hold down device can be added. 依据相应的WPS的要求控制电流, 电压和焊接速度。如有必要, 可使用反变形设施进行校正。
 实施次数(Number of application): 1~3
 最高温度(Maximum temperature): <650°C





REPORT OF MAGNETIC PARTICLE EXAMINATION

磁粉检测报告

REPORT NO. 报告编号 B787-MT-21500 DATE日期 2010.03.08 PAGE OF页码 1/1 Revision No: 0

PROJECT NO. 工程编号: ZP06-787		CONTRACTOR: 用户: CALTRANS	
DRAWING NO. 图号: SEG027* 6FLOOR BEAM SPLICE		CALTRANS CONTRACT NO.: 加州工程编号 04-0120F4	
REFERENCING CODE 参考规范编码 AWS D1.5-2002	ACCEPTANCE STANDARD 接受标准 AWS D1.5-2002	PROCEDURE NO. 程序编号 ZPQC-MT-01	CALIBRATION DUE DATE 仪器校正有效期 Dec. 28 ST , 2010
EQUIPMENT 设备 MT YOKE	MANUFACTURER 制造商 PARKER	MODEL NO. 样式编号 B310S	SERIAL NO. 连续编号 5395 5617 5620
MAGNETIZING METHOD 磁化方法	Continuous magnetic yoke 磁轭式连续法	CURRENT 电流	AC
PARTICLE TYPE 磁粉类型	Dry magnet powder 干磁粉	YOKE SPACING 磁轭间距	70~150mm
MATERIAL TO BE EXAMINED 检测材料	<input checked="" type="checkbox"/> WELDING 焊接件 <input type="checkbox"/> CASTING 铸件 <input type="checkbox"/> FORGING 锻造	Material & thickness 母材,厚度	A709M-345T2-X 14/20mm
WELDING PROCESS 焊接方法	FCAW	TYPE OF JOINT 焊缝类型	T-JOINT

WELD I.D. 焊缝编号	DISCONTINUITY不连续性			ACCEPT 接受	REJECT 拒收	REMARKS 备注
	INDICATION 指示	TYPE 类型	LENGTH IN mm 长度			
SEG027*-302				ACC.		100%MT
SEG027*-303				ACC.		100%MT
SEG027*-305				ACC.		100%MT
SEG029*-306				ACC.		100%MT
SEG029*-307				ACC.		100%MT
SEG029*-308				ACC.		100%MT
SEG029*-310				ACC.		100%MT
SEG029*-312				ACC.		100%MT
SEG029*-313				ACC.		100%MT

AFTER HSR1(B)-8155

BLANK

EXAMINED BY 主探 <u>Ding A cheng</u> LEVEL - II SIGN 签名 / DATE日期 10.03.08	REVIEWED BY 审核 <u>Su Wei</u> LEVEL-II SIGN / DATE日期 10.03.08
质量经理 / QCM 签字 SIGN / 日期 DATE	用户CUSTOMER 签字 SIGN / 日期 DATE



REPORT OF MAGNETIC PARTICLE EXAMINATION

磁粉检测报告

REPORT NO. 报告编号 B787-MT-19953		DATE日期 2010.03.08	PAGE OF页码 1/1	Revision No: 0
PROJECT NO. 工程编号: ZP06-787		CONTRACTOR: 用户: CALTRANS		
DRAWING NO. 图号: SGE027*1SGE029* FLOOR BEAM		CALTRANS CONTRACT NO.: 加州工程编号 04-0120F4		
REFERENCING CODE 参考规范编码 AWS D1.5-2002	ACCEPTANCE STANDARD 接受标准 AWS D1.5-2002	PROCEDURE NO. 程序编号 ZPQC-MT-01	CALIBRATION DUE DATE 仪器校正有效期 Dec. 28 ST , 2010	
EQUIPMENT 设备 MT YOKE	MANUFACTURER 制造商 PARKER	MODEL NO. 样式编号 B310S	SERIAL NO. 连续编号 5395 5617 5620	
MAGNETIZING METHOD 磁化方法	Continuous magnetic yoke 磁轭式连续法	CURRENT 电流	AC	
PARTICLE TYPE 磁粉类型	Dry magnet powder 干磁粉	YOKE SPACING 磁轭间距	70~150mm	
MATERIAL TO BE EXAMINED 检测材料	<input checked="" type="checkbox"/> WELDING 焊接件 <input type="checkbox"/> CASTING 铸件 <input type="checkbox"/> FORGING 锻造	Material & thickness 母材,厚度	A709M-345T2-X 12/20 mm	
WELDING PROCESS 焊接方法	FCAW	TYPE OF JOINT 焊缝类型	T-JOINT	

WELD I.D. 焊缝编号	DISCONTINUITY不连续性			ACCEPT 接受	REJECT 拒收	REMARKS 备注
	INDICATION 指示	TYPE 类型	LENGTH IN mm 长度			
FB011-007-004				ACC.		100%MT
FB029-001-092				ACC.		100%MT
FB011-003-004				ACC.		100%MT
FB011-003-003				ACC.		100%MT
FB003-029-005				ACC.		100%MT
FB003-029-004				ACC.		100%MT
FB033-001-092				ACC.		100%MT
FB033-001-093				ACC.		100%MT
FB009-005-004				ACC.		100%MT
FB015-011-002				ACC.		100%MT

AFTER HSR1(B) - 8155

BLANK

EXAMINED BY主操 Ding Acheng LEVEL - II SIGN 签名 / DATE日期 10.03.08 质量经理 / QCM	REVIEWED BY 审核 Su Wei LEVEL-II SIGN / DATE日期 10.03.08 用户CUSTOMER
签字 SIGN / 日期 DATE	签字 SIGN / 日期 DATE



REPORT OF MAGNETIC PARTICLE EXAMINATION

磁粉检测报告

REPORT NO. 报告编号 B787-MT-19968 DATE日期 2010.03.08 PAGE OF页码 1/1 Revision No: 0

PROJECT NO. 工程编号: ZP06-787 CONTRACTOR: 用户: CALTRANS

DRAWING NO. 图号: SEG027*/SEG029* CALTRANS CONTRACT NO.: 加州工程编号 04-0120F4
6AW+6BW DECK PLATE SPLICE

REFERENCING CODE 参考规范编码: AWS D1.5-2002 ACCEPTANCE STANDARD 接受标准: AWS D1.5-2002 PROCEDURE NO. 程序编号: ZPQC-MT-01 CALIBRATION DUE DATE 仪器校正有效期: Dec. 28ST, 2010

EQUIPMENT 设备: MT YOKE MANUFACTURER 制造商: PARKER MODEL NO. 样式编号: B310S SERIAL NO. 连续编号: 5395 5617 5620

MAGNETIZING METHOD 磁化方法: Continuous magnetic yoke 磁轭式连续法 CURRENT 电流: AC

PARTICLE TYPE 磁粉类型: Dry magnet powder 干磁粉 YOKE SPACING 磁轭间距: 70~150mm

MATERIAL TO BE EXAMINED 检测材料: WELDING 焊接件 Material & thickness 母材,厚度: A709M-345T2-X
 CASTING 铸件 14/20mm
 FORGING 锻造

WELDING PROCESS 焊接方法: FCAW TYPE OF JOINT 焊缝类型: TJOINT

WELD I.D. 焊缝编号	DISCONTINUITY不连续性			ACCEPT 接受	REJECT 拒收	REMARKS 备注
	INDICATION 指示	TYPE 类型	LENGTH IN mm 长度			
SEG027*-304				ACC.		100%MT
SEG027*-306				ACC.		100%MT
SEG027*-300				ACC.		100%MT
SEG027*-301				ACC.		100%MT
SEG029*-309				ACC.		100%MT
SEG029*-311				ACC.		100%MT

AFTER HSR1(B)-8155

BLANK

EXAMINED BY主探: Cai xin xin REVIEWED BY审核: Wang Wei
LEVEL - II SIGN 签名 / DATE日期: 10.03.08 LEVEL-II SIGN / DATE日期: 10.03.08
质量经理 / QCM 用户CUSTOMER
签字 SIGN / 日期 DATE 签字 SIGN / 日期 DATE

NCR PROPOSED RESOLUTION

To: CALTRANS - SAS Superstructure
333 Burma Road
Oakland CA 94607

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000650

Subject: NCR No. ZPMC-0659

Dated: 25-Jun-2010

Contract No.: 04-0120F4
04-SF-80-13.2 / 13.9

Job Name: SAS Superstructure

Document No.: ABF-NPR-000682 Rev: 01

Contractor's Proposed Resolution:

Reference Resolution: ZPMC QA has issued an internal NCR and advised to Technical Department to provide more detailing when issuing HSRs to prevent this from occurring again.

ZPMC has revised the HSR to reflect all areas observed being heat straightened. In addition, updated weld maps which shot the fillet welds which were turned into CJP welds have been attached as well as other requested weld maps from ZPMC. ZPMC QA has issued an internal NCR and advised to Technical Department to provide more detailing when issuing HSRs to prevent this from occurring again. Based on these actions, previously submitted NDT reports which show the affected welds are acceptable and that this work item was removed from the punchlist prior to shipment, ZPMC requests closure of this NCR.

Submitted by: Ishibashi, Joshua

Attachment(s): ABF-NPR-000682R01;

Caltrans' comments:

Status: REJ

Date: 07-Jul-2010

The Department will not consider this NCR closed until the following issues are addressed:

1. the locations of the added temporary welds are not shown on the revised HSR1.
2. not all the weld maps supplied are applicable to the repair locations or the piece marks and weld numbers listed in the NCR.
3. NDT records for the welds listed in the NCR have not been submitted completely.

Submitted by: Woo, Laraine

Date: 07-Jul-2010

Attachment(s):



No. B-802

LETTER OF RESPONSE

TO: American Bridge/Flour

DATE: 2010-6-25

REGARDING: NCR-000692(ZPMC-0659)

ZPMC acknowledged this issue and has written an internal NCR. As talked with ZPMC technical department, the future HSR1s will be issued with more detail method what will be used in field. And will be available to department's inspector to review. This issue has been rectified before the loading of OBG shipment 2. The relevant item has been verified and removed from punchlist by department's representative. ZPMC is providing the revised HSR1 and weld maps show the detail method what ZPMC used of this rectification and the affected locations. Based on this, please consider closure of this NCR.

ATTACHMENT:

NCR-000692(ZPMC-0659)

HSR1(B)-8155

WELD MAPS ASSOCIATING WITH HSR1(B)-8155

[Handwritten signature]
6/25/10



DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge

333 Burma Road
Oakland CA 94607
Tel: Fax:

NON-CONFORMANCE REPORT TRANSMITTAL

To: AMERICAN BRIDGE/FLUOR, A JV
375 BURMA ROAD
OAKLAND CA 95607

Date: 03-Mar-2010

Contract No: 04-0120F4
04-SF-80-13.2 / 13.9

Dear: Mr. Charles Kanapicki
Attention: Mr. Thomas Nilsson Project/Fabrication Manager
Subject: NCR No. ZPMC-0659

Job Name: SAS Superstructure
Document No: 05.03.06-000650

Reference Description: Unapproved Heat Straightening of Deck Plate Diaphragm

The attached Non-Conformance Report describes an occurrence where the contractor did not comply with a requirement of the contract document as indicated below:

- Material or Workmanship not in conformance with contract documents.
- Quality Control (QC) not performed in conformance with contract documents.
- Recurring QC issue that constitutes a systematic problem in quality control.
- Non-Conformance Resolved.

Material Location: OBG **Lift:** 06

Remarks:

- During random visual inspection of OBG Segment 6AW, this Caltrans Quality Assurance (QA) Inspector observed the following:
- ZPMC personnel have performed heat straightening at various locations along the top flange of the Floorbeam and the Deck Plate Diaphragm at Panel Point (PP) 40 in OBG segment 6AW.
- Heat Straightening work performed by ZPMC personnel deviated from the procedure shown on HSR1(B)-8155. Heat signatures were observed on the Deck Plate Diaphragm and the top flange of the Floorbeam. The internally approved HSR1 detailed heat straightening to be performed on the top flange of the Floorbeam only.
- QA was informed by ABF personnel that HSR1(B)-8155 was issued to correct perpendicular alignment between the Deck Plate Diaphragm and the Deck Plate.
- HSR1(B)-8155 denotes heat straightening of up to 25mm.
- Not all locations which received heat straightening were identified in HSR1(B)-8155.
- The jack used during heat straightening was not positioned as detailed in the HSR1.
- The piece marks of the affected Floorbeams at PP40 are as follows: FB011-003, FB003-028, FB033-001. The piece mark of the Deck Plate Diaphragm at PP40 is X1B.
- The Deck Plate Diaphragm is 716mm tall and 14mm thick.
- The weld numbers for the affected welds at PP40 are as follows: SSD12-PP040-005, SSD12-PP040-006, SSD12B-PP040-003, FB003-028-004, FB003-028-005, FB011-003-003, FB011-003-004, FB011-003-044, FB033-001-092, FB033-001-093, and FB033-001-147.
- The members affected by the above mentioned heat straightening work are not designated as SPCM material.

For further information please reference the attached pictures.

Action Required and/or Action Taken:

Propose a resolution for the identified non-conformance with revised procedures to prevent future occurrences. A response for the resolution of this issue is expected within 7 days.

NCT

(Continued Page 2 of 2)

Transmitted by: Bill Howe Sr. Transportation Engineer

Attachments: ZPMC-0659

cc: Rick Morrow, Gary Pursell, Peter Siegenthaler, Stanley Ku, Brian Boal, Jason Tom, Contract Files, Ching Chao

File: 05.03.06

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave. St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.25B

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

Location: Changxing Island, Shanghai, P.R. China**Report No:** NCR-000692**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 02-Mar-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0659**Type of problem:**Welding Concrete Other Welding Curing Procedural Bridge No: 34-0006Joint fit-up Coating Other Component: PP40, OBG Segment 6AWProcedural Procedural Description:**Reference Description:** Unapproved Heat Straightening of Deck Plate Diaphragm**Description of Non-Conformance:**

During random visual inspection of OBG Segment 6AW, this Caltrans Quality Assurance (QA) Inspector observed the following:

-ZPMC personnel have performed heat straightening at various locations along the top flange of the Floorbeam and the Deck Plate Diaphragm at Panel Point (PP) 40 in OBG segment 6AW.

-Heat Straightening work performed by ZPMC personnel deviated from the procedure shown on HSR1(B)-8155. Heat signatures were observed on the Deck Plate Diaphragm and the top flange of the Floorbeam. The internally approved HSR1 detailed heat straightening to be performed on the top flange of the Floorbeam only.

-QA was informed by ABF personnel that HSR1(B)-8155 was issued to correct perpendicular alignment between the Deck Plate Diaphragm and the Deck Plate.

-HSR1(B)-8155 denotes heat straightening of up to 25mm.

-Not all locations which received heat straightening were identified in HSR1(B)-8155.

-The jack used during heat straightening was not positioned as detailed in the HSR1.

-The piece marks of the affected Floorbeams at PP40 are as follows: FB011-003, FB003-028, FB033-001. The piece mark of the Deck Plate Diaphragm at PP40 is X1B.

-The Deck Plate Diaphragm is 716mm tall and 14mm thick.

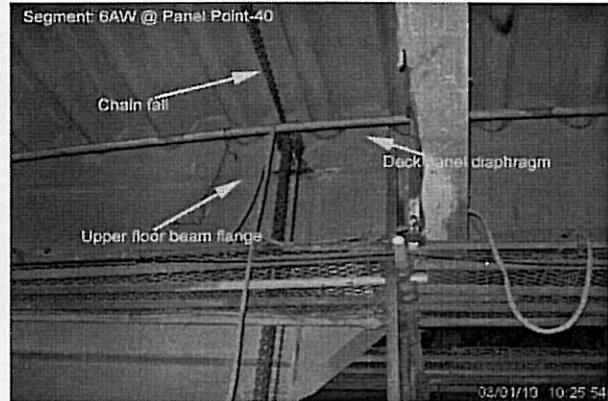
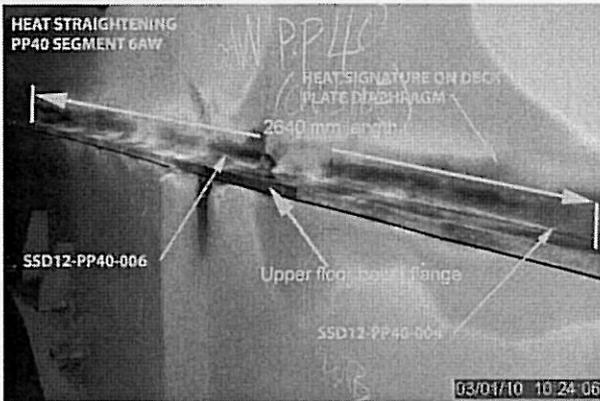
-The weld numbers for the affected welds at PP40 are as follows: SSD12-PP040-005, SSD12-PP040-006, SSD12B-PP040-003, FB003-028-004, FB003-028-005, FB011-003-003, FB011-003-004, FB011-003-044, FB033-001-092, FB033-001-093, and FB033-001-147.

-The members affected by the above mentioned heat straightening work are not designated as SPCM material.

For further information please reference the attached pictures.

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 3)



Applicable reference:

- Contract Special Provision, Section 8.3: "For material less than or equal to 16 mm thick the contractor shall not heat straighten members more than 6 in 1000 without prior approval of the Engineer."
- AWS D1.5/2002 Section 3.7.3; "Members distorted by welding shall be heat straightened by mechanical means or by carefully supervised application of a limited amount of localized heat as approved by the engineer."

-HSR1(B)-8155

Who discovered the problem: Manoj Prabhune

Name of individual from Contractor notified: CK Chang

Time and method of notification: 03-01-2010 / 10:35 / Verbal

Name of Caltrans Engineer notified: Bill Howe

Time and method of notification: 03-02-2010 / 08:00 / Verbal

QC Inspector's Name: Wang Lu

Was QC Inspector aware of the problem: Yes No

Contractor's proposal to correct the problem:

N/A

Comments:

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh,(818) 292-0659, who represents the

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 3 of 3)

Office of Structural Materials for your project.

Inspected By: Simonis,Jim

QA Inspector

Reviewed By: Wahbeh,Mazen

SMR



火工校正记录

Heat Straightening Record(HSR1)

报告号 Record# HSR1(B)-8155
 版本号 Revision # 1
 日期 Date 2010.02.27

美国海湾大桥 San Francisco Oakland Bay Bridge

CALTRANS #04-0120F4 工程编号 JOB#: ZP06-787

装配 Assembly:	质检代表/Quality Control Representative
部装 Sub-Assembly:	<i>[Signature]</i> 2/27/10
梁段 Gird: 6AW/6BW	质检经理/Quality Assurance Manager-Approval
塔段 Tower: N/A	<i>[Signature]</i>
焊缝号 Weld No: See Sketch	
焊缝地图号 Weld Map No: See Sketch	

情况描述 Description of Condition

Cause原因 Welding distortion 焊接变形
 Type of Defect缺陷类型 Welding distortion 焊接变形
 Inspection Method检查方法 Visual 目检

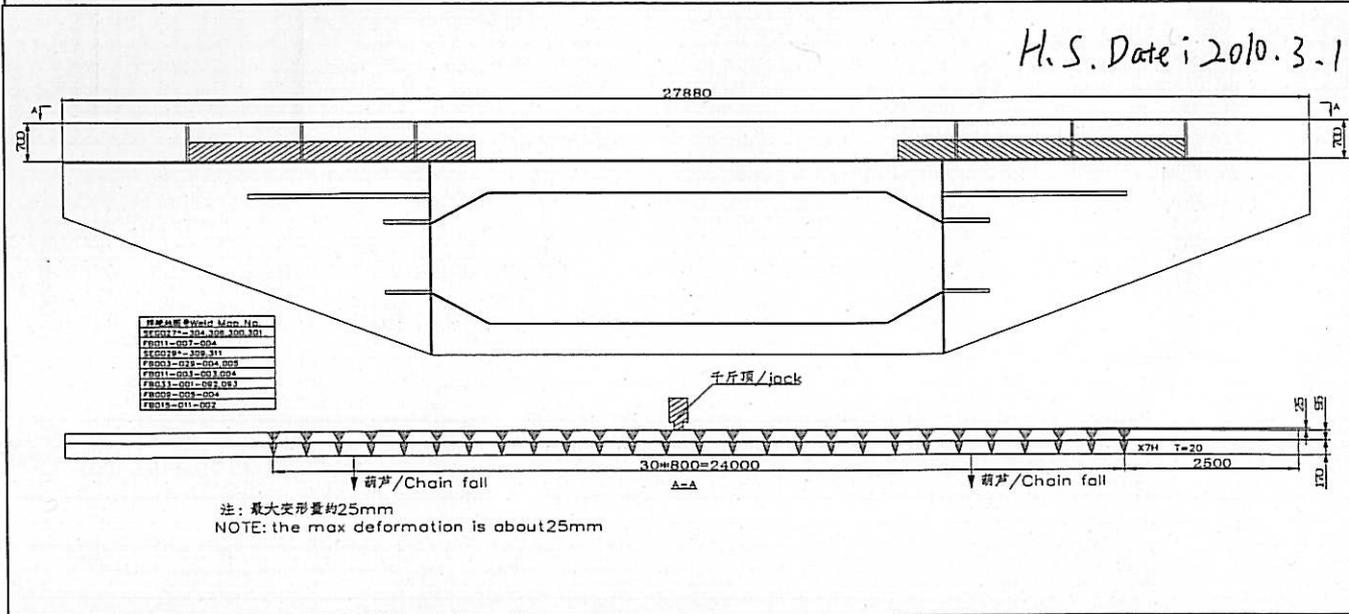
处置方法 Disposition

缺陷去除方法(Defect Removal Method): natural gas 天然气

后续NDE(Post-Removal NDE): After finishing heat straightening, the weld of the heat area shall perform NDT according to the approved shop drawing 校火后, 根据图纸要求对热影响区域进行 NDT 检测。
 纠正措施(Corrective Action(s)): Control current, voltage and weld speed according to relevant WPS. If necessary anti-deformation or hold down device can be added. 依据相应的WPS的要求控制电流, 电压和焊接速度。如有必要, 可使用反变形设施进行校正。

实施次数(Number of application): 1~3
 最高温度(Maximum temperature): <650°C

简图 Sketch



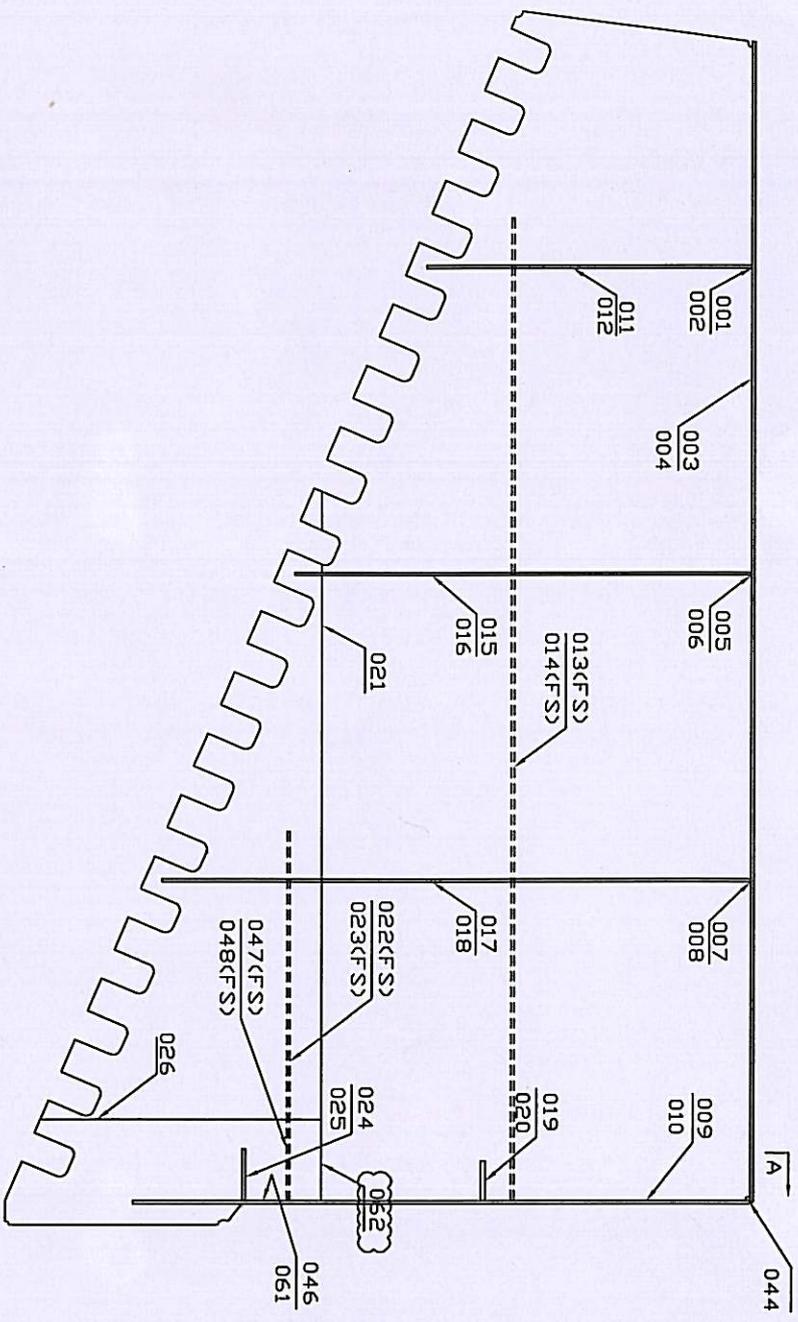
To be signed when Closing HSR-Verify compliance and all necessary reports are ready to attach

检验员 Inspector: Li Yanhua	签字 Signature: <i>[Signature]</i> 2010.3.6
CWI # 07120701	Closing Date: 2010.03.08
II 级探伤 NDE Certification: Level II	
质检经理 QC Manager <i>[Signature]</i>	审核日期 Review Date: 2/8/10

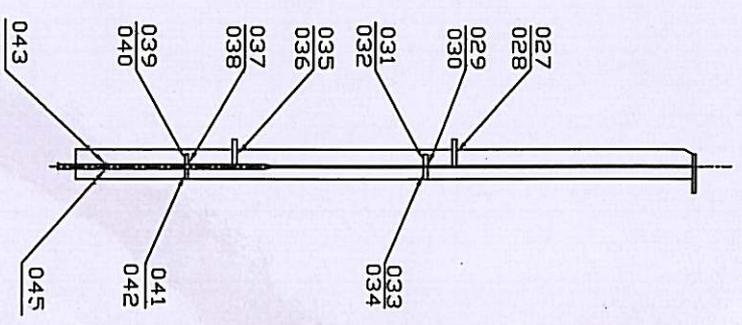
Note: All repair work shall be performed in accordance with applicable CALTRANS approved procedures, contract specifications and AWS D1.5 2002.

#R787-QCP-1101

Approved by *[Signature]* 2/27/10



FLOODBEAM SUB-ASSEMBLIES
(W/LINE-LOOKING EAST)(NORTH HALF)

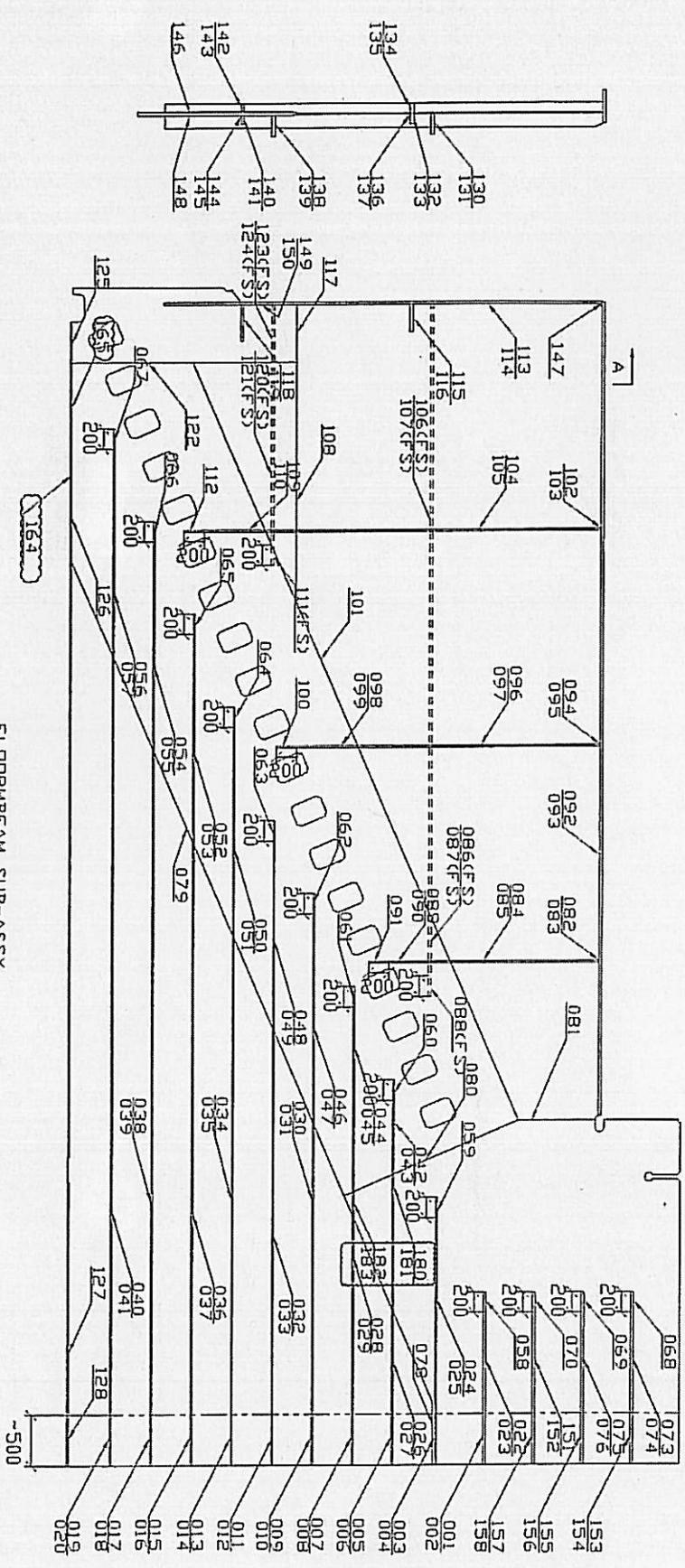


SECTION A-A

注意：如有变更原图的标注时，请QA
人员加工后进行标注。

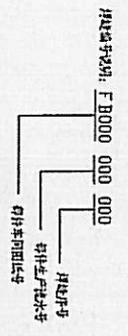
详细编号规则: F B000 000 000
 详细编号
 零件生产流水号
 零件车削图底号

			
ZHANGJIANG ZHONGYUAN INVESTMENT CO. LTD. VELDING WAP		SHANGHAI ZHANGJIANG ZHONGYUAN INVESTMENT CO. LTD. F B009	
DRAWING CHECKED	DATE	SHEET F B009	PARTITION 1/1



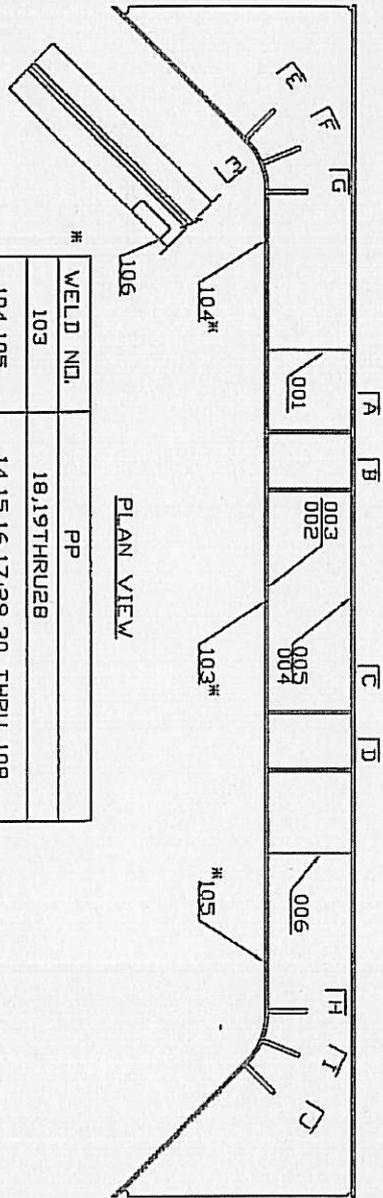
FLOOR/BEAM SUB-ASSY
(W/LINE-LOOKING EAST)

注意：本图是初步设计图，仅供参考。
详细加工尺寸请参照详图。

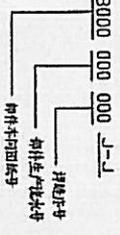
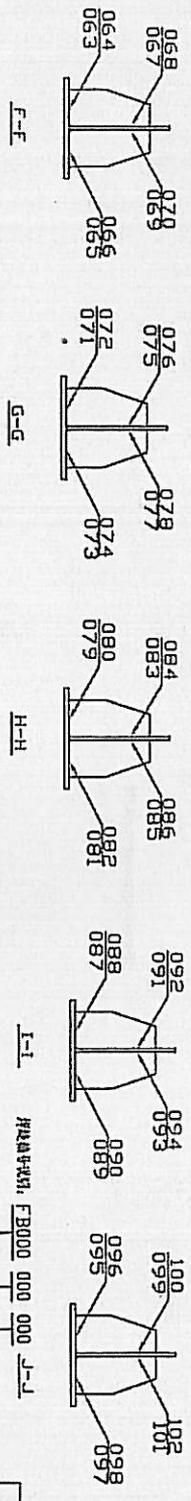
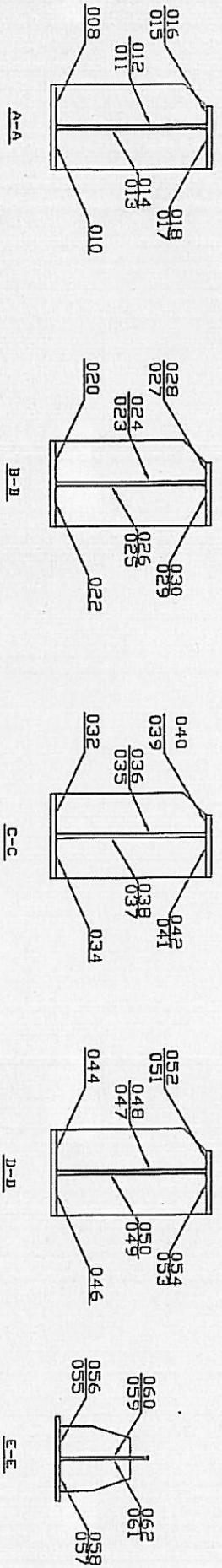


		中国北车集团	
设计号: F B033	图名: 楼层梁下弦	比例: 1/1	日期: 2009.3.28

2009-3-28 11:05:25. MZM.M4



#	WELD NDL	PP
103	18,19THRU28	
104,105	14,15,16,17,29,30	THRU 108



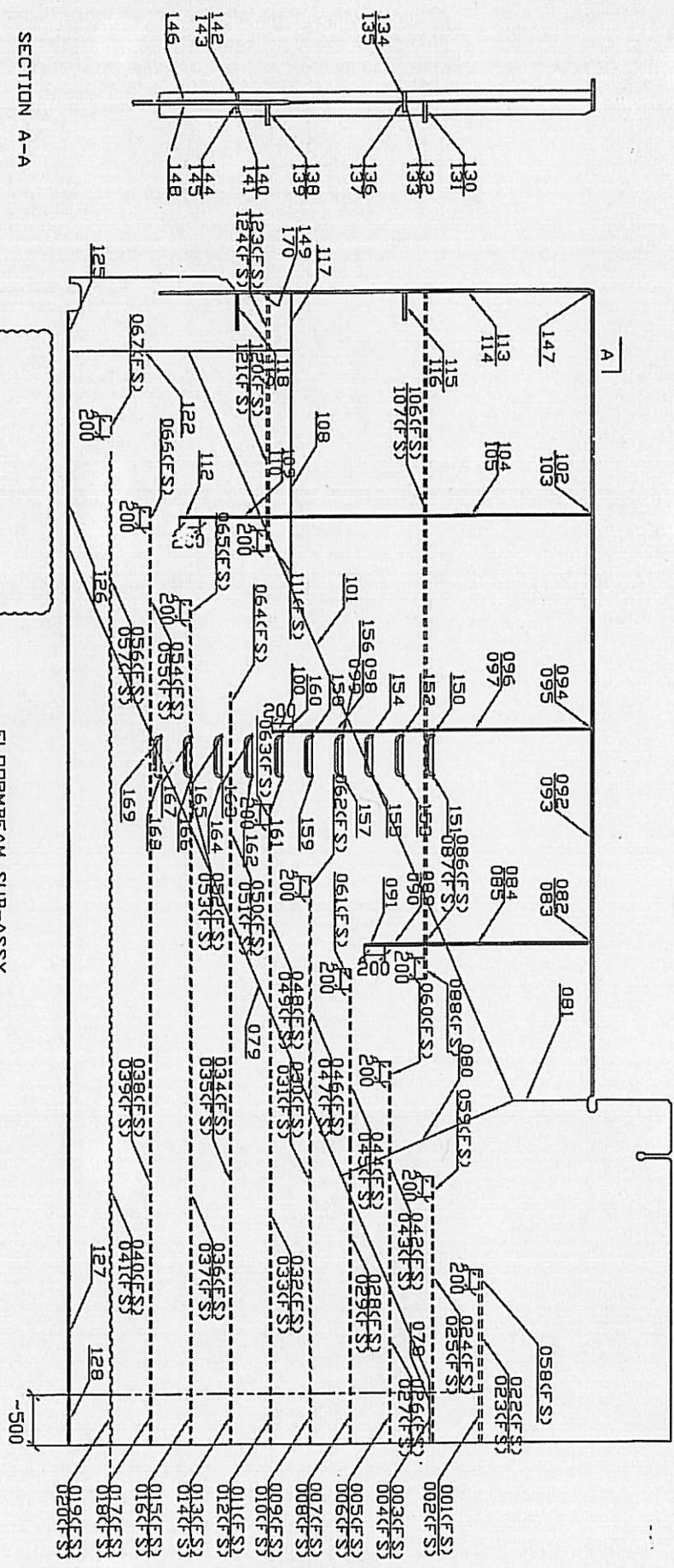
注意:
 1. 焊丝规格及板厚按图样, 焊丝规格按
 工艺进行材料采购。
 2. 焊丝规格 108 标注在 PP20(w line)

ZPMC
 ZHEJIANG POWER MACHINERY GROUP CO., LTD.
 VCLUJING HWP
 SHANGHAI
 F 0003
 1/1

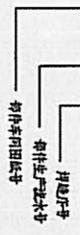
2009-12-6 8:55:51, MANN.Y

SECTION A-A

FLOORBEAM SUB-ASSY
 (W/LINE-LOOKING EAST)



按此符号标注: F3000 000 000

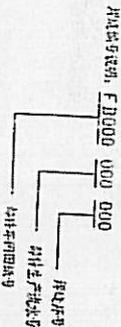
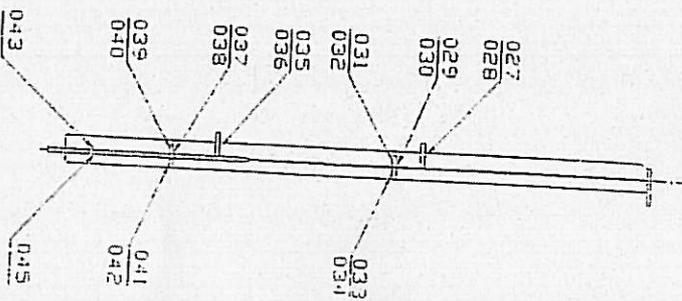
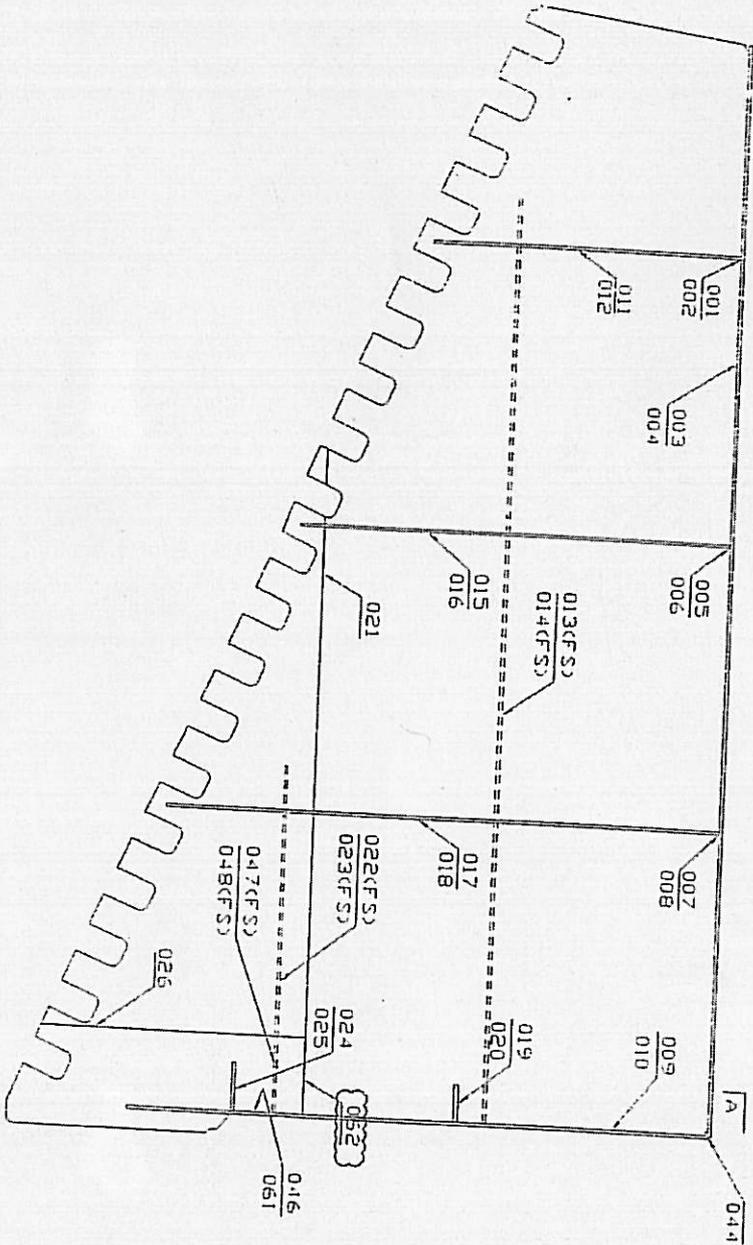


注: 本图是依据设计图, WQCA
 及加工工艺进行编制。

ZPMC
 ZHANGJIANG PUMP & MOTOR CO., LTD.
 WELDING MAP
 SHEET DRAWING NO. F3029
 PARTITION 1/1

2009/12/22/09

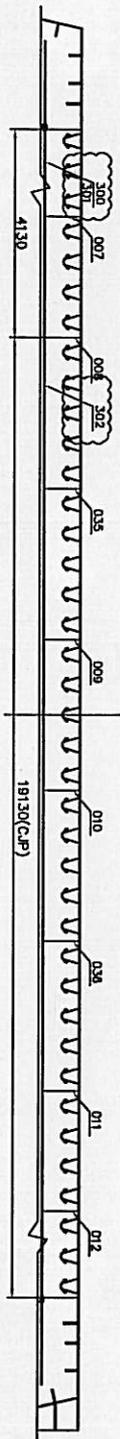
FLOORBEAM SUB-ASSEMBLIES
 (W'LINE-LOOKING EAST(NORTH HALF))



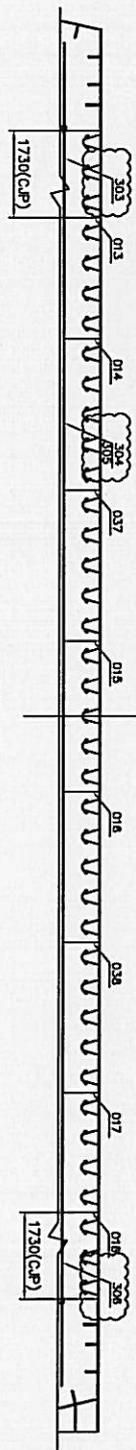
注：如有必要，请在图中注明。

Logos and technical specifications for the drawing:

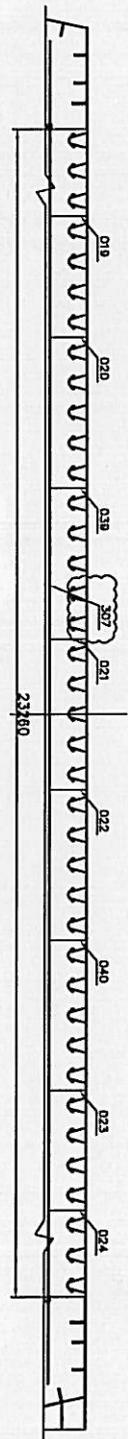
- Logos for various organizations.
- Technical specifications and drawing details.



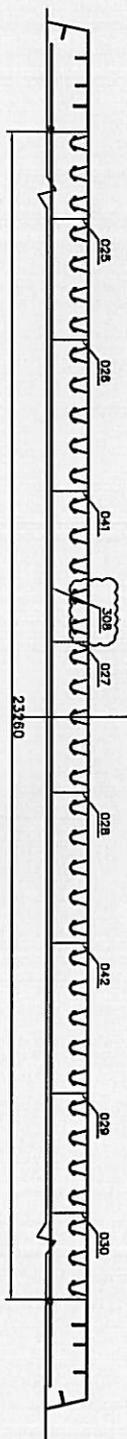
A1-A1



B1-B1



C1-C1



D1-D1

- 注意：
1. 如有遗漏或重复标注的焊缝，请QC人员通知工艺进行补标或删减。
 2. 本页适用板单元的两拼三拼及构件成型的焊缝地图，每张的对接焊缝编号在各目的板单元图纸上。

焊缝编号规则：SEG027* XXX

XXX 焊缝序号
 附件车用图纸号

			
SHANGHAI ZHENHUA PORT MACHINERY CO., LTD.		SINOTRAC GROUP CO., LTD.	
DRAWN		CHECKED	
WELDING MAP		PAGE 2/2	
SHEET NO. SEG 027*		MANUFACTURE	

NCR PROPOSED RESOLUTION

To: CALTRANS - SAS Superstructure
333 Burma Road
Oakland CA 94607

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000650

Subject: NCR No. ZPMC-0659

Dated: 15-Jul-2010

Contract No.: 04-0120F4
04-SF-80-13.2 / 13.9

Job Name: SAS Superstructure

Document No.: ABF-NPR-000682 Rev: 02

Contractor's Proposed Resolution:

Reference Resolution: ZPMC is providing the revised HSR1. NDT required by the response to RFI-02083R00 will be done in the US as this component is no longer at ZPMC. Based on this and previously submitted documentation.

ZPMC is providing the revised HSR1. NDT required by the response to RFI-02083R00 will be done in the US as this component is no longer at ZPMC. Based on this and previously submitted documentation. ZPMC requests closure of this NCR.

Submitted by: Ishibashi, Joshua

Attachment(s): ABF-NPR-000682R02;

Caltrans' comments:

Status: REJ

Date: 19-Jul-2010

The NCR was issued on March 2, 2010, and the final revision to the HSR was made last week, the dates need to coincide with each other.

Submitted by: Woo, Laraine

Date: 19-Jul-2010

Attachment(s):



No. B-822

LETTER OF RESPONSE

TO: American Bridge/Flour

DATE: 2010-7-14

REGARDING: NCR-000692(ZPMC-0659)

ZPMC is providing the revised HSR1, what shows the detailing method used on site. Based on this and with the previously submitted NDT records, ZPMC is requesting closure of this NCR.

ATTACHMENT:

NCR-000692(ZPMC-0659)

HSR1(B)-8155 R1

A handwritten signature in black ink, appearing to be 'Jay W'.

7/14/10



DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge
333 Burma Road
Oakland CA 94607
Tel: Fax:

NON-CONFORMANCE REPORT TRANSMITTAL

To: AMERICAN BRIDGE/FLUOR, A JV
375 BURMA ROAD
OAKLAND CA 95607

Date: 03-Mar-2010

Contract No: 04-0120F4
04-SF-80-13.2 / 13.9

Dear: Mr. Charles Kanapicki

Job Name: SAS Superstructure

Attention: Mr. Thomas Nilsson Project/Fabrication Manager

Document No: 05.03.06-000650

Subject: NCR No. ZPMC-0659

Reference Description: Unapproved Heat Straightening of Deck Plate Diaphragm

The attached Non-Conformance Report describes an occurrence where the contractor did not comply with a requirement of the contract document as indicated below:

- Material or Workmanship not in conformance with contract documents.
- Quality Control (QC) not performed in conformance with contract documents.
- Recurring QC issue that constitutes a systematic problem in quality control.
- Non-Conformance Resolved.

Material Location: OBG

Lift: 06

Remarks:

- During random visual inspection of OBG Segment 6AW, this Caltrans Quality Assurance (QA) Inspector observed the following:
- ZPMC personnel have performed heat straightening at various locations along the top flange of the Floorbeam and the Deck Plate Diaphragm at Panel Point (PP) 40 in OBG segment 6AW.
 - Heat Straightening work performed by ZPMC personnel deviated from the procedure shown on HSR1(B)-8155. Heat signatures were observed on the Deck Plate Diaphragm and the top flange of the Floorbeam. The internally approved HSR1 detailed heat straightening to be performed on the top flange of the Floorbeam only.
 - QA was informed by ABF personnel that HSR1(B)-8155 was issued to correct perpendicular alignment between the Deck Plate Diaphragm and the Deck Plate.
 - HSR1(B)-8155 denotes heat straightening of up to 25mm.
 - Not all locations which received heat straightening were identified in HSR1(B)-8155.
 - The jack used during heat straightening was not positioned as detailed in the HSR1.
 - The piece marks of the affected Floorbeams at PP40 are as follows: FB011-003, FB003-028, FB033-001. The piece mark of the Deck Plate Diaphragm at PP40 is X1B.
 - The Deck Plate Diaphragm is 716mm tall and 14mm thick.
 - The weld numbers for the affected welds at PP40 are as follows: SSD12-PP040-005, SSD12-PP040-006, SSD12B-PP040-003, FB003-028-004, FB003-028-005, FB011-003-003, FB011-003-004, FB011-003-044, FB033-001-092, FB033-001-093, and FB033-001-147.
 - The members affected by the above mentioned heat straightening work are not designated as SPCM material.

For further information please reference the attached pictures.

Action Required and/or Action Taken:

Propose a resolution for the identified non-conformance with revised procedures to prevent future occurrences. A response for the resolution of this issue is expected within 7 days.

NCT

(Continued Page 2 of 2)

Transmitted by: Bill Howe Sr. Transportation Engineer

Attachments: ZPMC-0659

cc: Rick Morrow, Gary Pursell, Peter Siegenthaler, Stanley Ku, Brian Boal, Jason Tom, Contract Files, Ching Chao

File: 05.03.06

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

690 Walnut Ave. St. 150

Vallejo, CA 94592-1133

(707) 649-5453

(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.25B**QUALITY ASSURANCE -- NON-CONFORMANCE REPORT****Location:** Changxing Island, Shanghai, P.R. China**Report No:** NCR-000692**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 02-Mar-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0659**Type of problem:**Welding Concrete Other Welding Curing Procedural Joint fit-up Coating Other Procedural Procedural Description: **Bridge No:** 34-0006**Component:** PP40, OBG Segment 6AW**Reference Description:** Unapproved Heat Straightening of Deck Plate Diaphragm**Description of Non-Conformance:**

During random visual inspection of OBG Segment 6AW, this Caltrans Quality Assurance (QA) Inspector observed the following:

-ZPMC personnel have performed heat straightening at various locations along the top flange of the Floorbeam and the Deck Plate Diaphragm at Panel Point (PP) 40 in OBG segment 6AW.

-Heat Straightening work performed by ZPMC personnel deviated from the procedure shown on HSR1(B)-8155. Heat signatures were observed on the Deck Plate Diaphragm and the top flange of the Floorbeam. The internally approved HSR1 detailed heat straightening to be performed on the top flange of the Floorbeam only.

-QA was informed by ABF personnel that HSR1(B)-8155 was issued to correct perpendicular alignment between the Deck Plate Diaphragm and the Deck Plate.

-HSR1(B)-8155 denotes heat straightening of up to 25mm.

-Not all locations which received heat straightening were identified in HSR1(B)-8155.

-The jack used during heat straightening was not positioned as detailed in the HSR1.

-The piece marks of the affected Floorbeams at PP40 are as follows: FB011-003, FB003-028, FB033-001. The piece mark of the Deck Plate Diaphragm at PP40 is X1B.

-The Deck Plate Diaphragm is 716mm tall and 14mm thick.

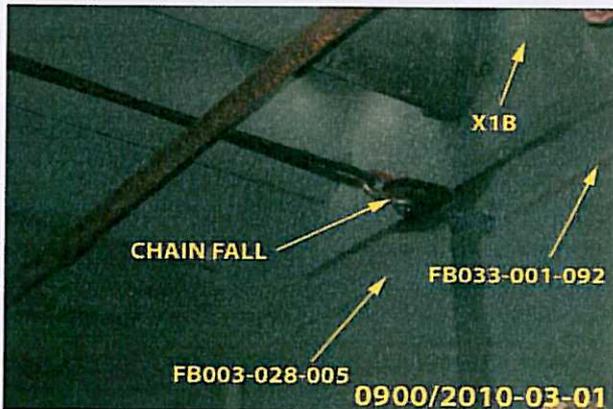
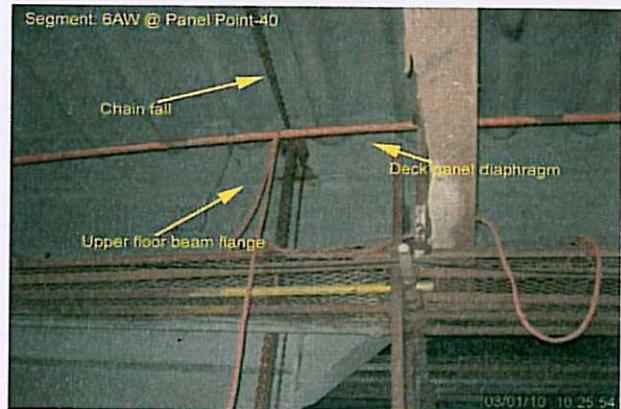
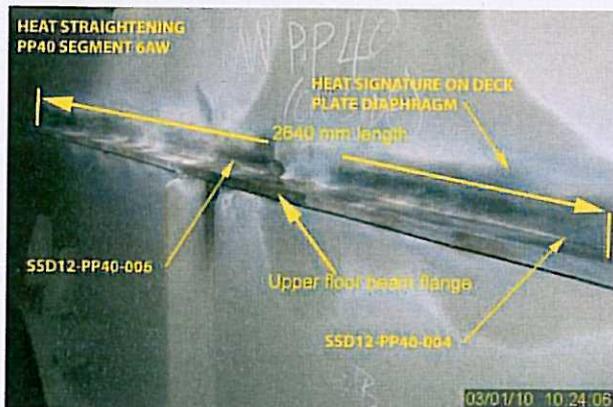
-The weld numbers for the affected welds at PP40 are as follows: SSD12-PP040-005, SSD12-PP040-006, SSD12B-PP040-003, FB003-028-004, FB003-028-005, FB011-003-003, FB011-003-004, FB011-003-044, FB033-001-092, FB033-001-093, and FB033-001-147.

-The members affected by the above mentioned heat straightening work are not designated as SPCM material.

For further information please reference the attached pictures.

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 3)



Applicable reference:

- Contract Special Provision, Section 8.3: "For material less than or equal to 16 mm thick the contractor shall not heat straighten members more than 6 in 1000 without prior approval of the Engineer."
- AWS D1.5/2002 Section 3.7.3; "Members distorted by welding shall be heat straightened by mechanical means or by carefully supervised application of a limited amount of localized heat as approved by the engineer."

-HSR1(B)-8155

Who discovered the problem: Manoj Prabhune

Name of individual from Contractor notified: CK Chang

Time and method of notification: 03-01-2010 / 10:35 / Verbal

Name of Caltrans Engineer notified: Bill Howe

Time and method of notification: 03-02-2010 / 08:00 / Verbal

QC Inspector's Name: Wang Lu

Was QC Inspector aware of the problem: Yes No

Contractor's proposal to correct the problem:

N/A

Comments:

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh,(818) 292-0659, who represents the

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 3 of 3)

Office of Structural Materials for your project.

Inspected By: Simonis,Jim

QA Inspector

Reviewed By: Wahbeh,Mazen

SMR



火工校正记录

Heat Straightening Record(HSR1)

报告号 Record#

HSR1(B)-8155

版本号 Revision #

1

日期 Date

2010.03.01

美国海湾大桥 San Francisco Oakland Bay Bridge

CALTRANS #04-0120F4

工程编号 JOB#: ZP06-787

装配 Assembly:

质检代表/Quality Control Representative

部装 Sub-Assembly:

梁段 Gird: 6AW/6BW

质检经理/Quality Assurance Manager-Approval

塔段 Tower: N/A

焊缝号 Weld No: See Sketch

焊缝地图号 Weld Map No: See Sketch

情况描述 Description of Condition

Cause 原因 Welding distortion 焊接变形

Type of Defect 缺陷类型 Welding distortion 焊接变形

Inspection Method 检查方法 Visual 目检

处置方法 Disposition

缺陷去除方法(Defect Removal Method): natural gas 天然气

后续NDE(Post-Removal NDE):

After finishing heat straightening, the weld of the heat area shall perform NDT according to the approved shop drawing 校火后, 根据图纸要求对热影响区域进行 NDT 检测。

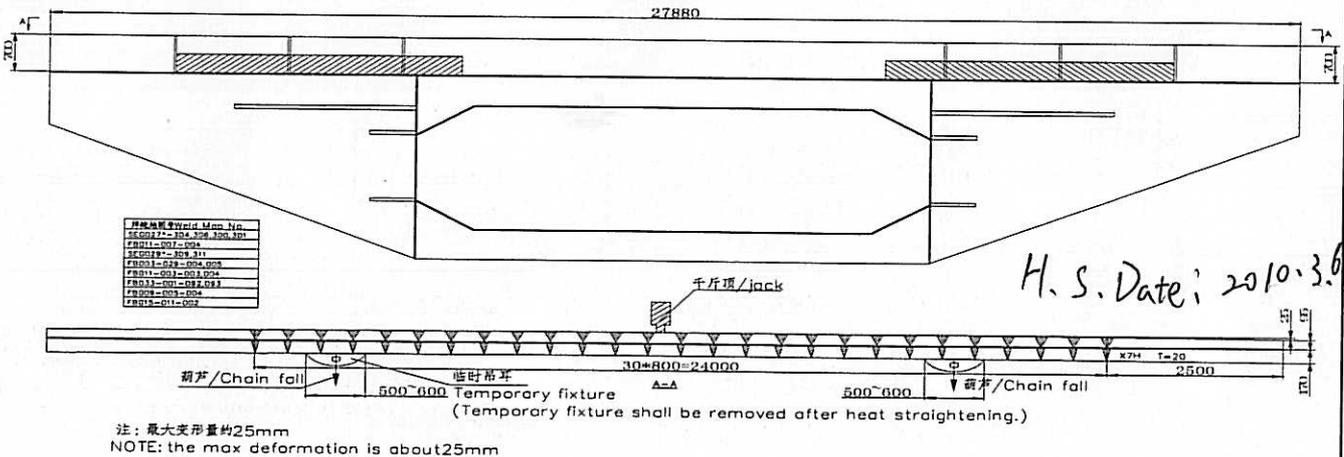
纠正措施(Corrective Action(s)):

Control current, voltage and weld speed according to relevant WPS. If necessary anti-deformation or hold down device can be added. 依据相应的WPS的要求控制电流, 电压和焊接速度。如有必要, 可使用反变形设施进行校正。

实施次数(Number of application): 1~3

最高温度(Maximum temperature): <650°C

简图 Sketch



To be signed when Closing HSR~Verify compliance and all necessary reports are ready to attach

检验员 Inspector:

Li Yanhua

签字 Signature:

李岩华

2010.3.6

CWI #

07120701

II 级探伤 NDE Certification:

Level II

Closing Date:

2010.03.08

质检经理 QC Manager

Li Yanhua

审核日期 Review Date:

3/8/10

Note: All repair work shall be performed in accordance with applicable CALTRANS approved procedures, contract specifications and AWS D1.5 2002.

#R787-QCP-1101

Approved by Li Yanhua 3/1/10

NCR PROPOSED RESOLUTION

To: CALTRANS - SAS Superstructure
333 Burma Road
Oakland CA 94607

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000650

Subject: NCR No. ZPMC-0659

Dated: 27-Aug-2010

Contract No.: 04-0120F4
04-SF-80-13.2 / 13.9

Job Name: SAS Superstructure

Document No.: ABF-NPR-000682 Rev: 03

Contractor's Proposed Resolution:

Reference Resolution: ZPMC is submitting the HSR with the revised date which shows the changes made occurred on 7/15/2010.

ZPMC is submitting the HSR with the revised date which shows the changes made occurred on 7/15/2010. The work referenced on the HSR still took place on 3/3/2010 but the revisions of the HSR required for closure of this NCR were done subsequently. Based on this revisions and previously submitted acceptable NDT results, ZPMC requests closure of this NCR.

Submitted by: Ishibashi, Joshua

Attachment(s): ABF-NPR-000682R03;

Caltrans' comments:

Status: CLO

Date: 31-Aug-2010

The submitted documentation is sufficient to close this NCR.

Submitted by: Woo, Laraine

Attachment(s):

Date: 31-Aug-2010



火工校正记录

Heat Straightening Record(HSR1)

报告号 Record#

HSR1(B)-8155

版本号 Revision #

2

日期 Date

2010.07.15

美国海湾大桥 San Francisco Oakland Bay Bridge

CALTRANS #04-0120F4

工程编号 JOB#: ZP06-787

装配 Assembly:

质检代表/Quality Control Representative

部装 Sub-Assembly:

[Signature] 7/15/10

梁段 Gird:

6AW/6BW

质检经理/Quality Assurance Manager-Approval

塔段 Tower:

N/A

焊缝号 Weld No:

See Sketch

焊缝地图号 Weld Map No:

See Sketch

情况描述 Description of Condition

Cause原因

Welding distortion 焊接变形

Type of Defect缺陷类型

Welding distortion 焊接变形

Inspection Method检查方法

Visual 目检

处置方法 Disposition

缺陷去除方法(Defect Removal Method):

natural gas 天然气

后续NDE(Post-Removal NDE):

After finishing heat straightening, the weld of the heat area shall perform NDT according to the approved shop drawing 校火后, 根据图纸要求对热影响区域进行 NDT 检测。

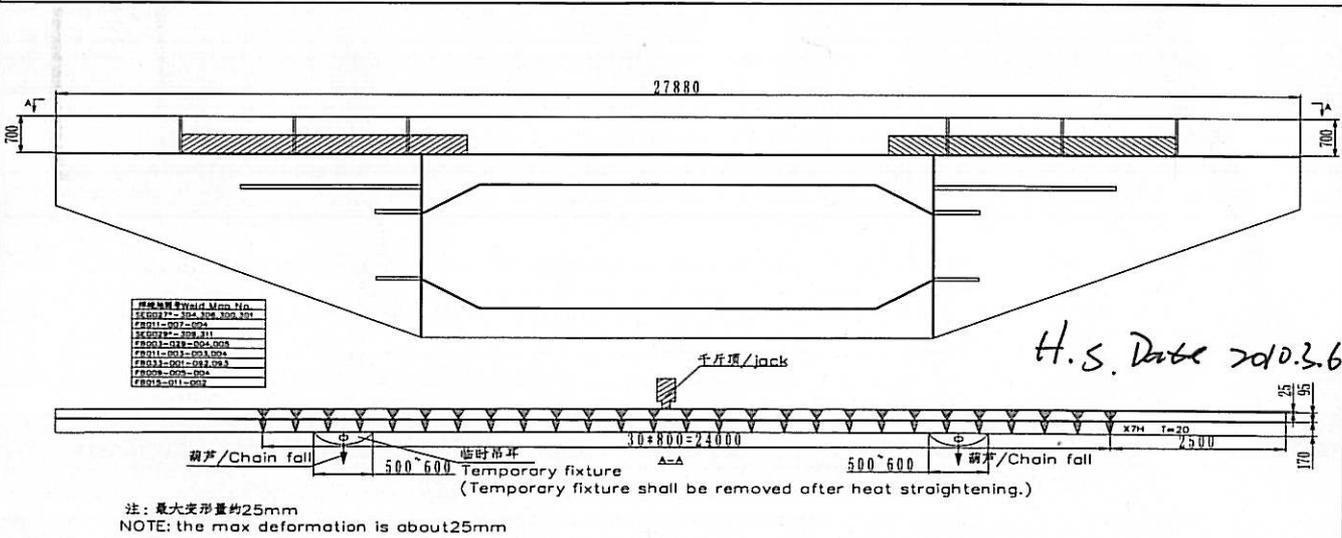
纠正措施(Corrective Action(s)):

Control current, voltage and weld speed according to relevant WPS. If necessary anti-deformation or hold down device can be added. 依据相应的 WPS 的要求控制电流, 电压和焊接速度。如有必要, 可使用反变形设施进行校正。

实施次数(Number of application): 1~3

最高温度(Maximum temperature): <650°C

简图 Sketch



To be signed when Closing HSR~Verify compliance and all necessary reports are ready to attach

检验员 Inspector:

Li Yanhua

签字 Signature:

[Signature] 2010.3.6

CWI #

07120701

II 级探伤 NDE Certification:

Level II

Closing Date:

2010.3.08

质检经理 QC Manager

[Signature]

审核日期 Review Date:

3/8/10

Note: All repair work shall be performed in accordance with applicable CALTRANS approved procedures, contract specifications and AWS D1.5 2002.

#R787-QCP-1101

Approved by *[Signature]* 3/1/10

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave. St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: xx.25A**QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION****Location:** Changxing Island, Shanghai, P.R. China**Report No:** NCS-000745**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 01-Sep-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0659**Type of problem:**

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component:
Procedural	Procedural	Description:	

Date the Non-Conformance Report was written: 02-Mar-2010**Description of Non-Conformance:**

During random visual inspection of OBG Segment 6AW, this Caltrans Quality Assurance (QA) Inspector observed the following:

- ZPMC personnel have performed heat straightening at various locations along the top flange of the Floorbeam and the Deck Plate Diaphragm at Panel Point (PP) 40 in OBG segment 6AW.
- Heat Straightening work performed by ZPMC personnel deviated from the procedure shown on HSR1(B)-8155. Heat signatures were observed on the Deck Plate Diaphragm and the top flange of the Floorbeam. The internally approved HSR1 detailed heat straightening to be performed on the top flange of the Floorbeam only.
- QA was informed by ABF personnel that HSR1(B)-8155 was issued to correct perpendicular alignment between the Deck Plate Diaphragm and the Deck Plate.
- HSR1(B)-8155 denotes heat straightening of up to 25mm.
- Not all locations which received heat straightening were identified in HSR1(B)-8155.
- The jack used during heat straightening was not positioned as detailed in the HSR1.
- The piece marks of the affected Floorbeams at PP40 are as follows: FB011-003, FB003-028, FB033-001. The piece mark of the Deck Plate Diaphragm at PP40 is X1B.
- The Deck Plate Diaphragm is 716mm tall and 14mm thick.
- The weld numbers for the affected welds at PP40 are as follows: SSD12-PP040-005, SSD12-PP040-006, SSD12B-PP040-003, FB003-028-004, FB003-028-005, FB011-003-003, FB011-003-004, FB011-003-044, FB033-001-092, FB033-001-093, and FB033-001-147.
- The members affected by the above mentioned heat straightening work are not designated as SPCM material.

For further information please reference the attached pictures.

Contractor's proposal to correct the problem:

Provide an updated HSR1 detailing work that was performed in the field.

